Abstract

An interconnect for semiconductor components includes a substrate, and interconnect contacts on the substrate for electrically engaging component contacts on the components. The interconnect contacts include silicon carbide conductive layers, and conductors in electrical communication with the silicon carbide conductive layers. The silicon carbide conductive layers provides a wear resistant surface, and improved heat transfer between the component contacts and the interconnect contacts. The silicon carbide conductive layers can comprise doped silicon carbide, or alternately thermally oxidized silicon carbide. The interconnect can be configured for use with a testing apparatus for testing discrete components such as dice or chip scale packages, or alternately for use with a testing apparatus for testing wafer sized components, such as wafers, panels and boards. In addition, the interconnect can be configured for constructing semiconductor packages and electronic assemblies such as multi chip modules.